

Date: Wed, 17 Sep 2003 10:38:02 -0400  
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Subject: Re: When to invoke quarantine/isolation -- SARS-Q

I don't know of any explicit analysis of this. Our Fig. 4 in the attached is indirectly relevant, but certainly doesn't quantify the answer to your question.

I agree with the basic premise -- although even in an endemic area, if the situation is under control, the entry of a new infectious person who is not identified as such could be a significant problem (depending on how you define endemic -- say in Taiwan or Vietnam or Toronto in the last outbreak, at least).

It struck me as I reflected on our discussions that quarantine is really being used to refer to at least 4 very different activities, for which there are different questions, different needs and different levels of current preparedness

- 1) Quarantine in the old-fashioned sense of detaining possibly exposed people at borders (could be base borders, national borders, etc.) for an amount of time equal to an incubation period or more, to make sure they are not infected/infectious
- 2) Quarantine in the sense it was most commonly used during the SARS outbreak (and as defined by CDC <http://www.cdc.gov/ncidod/sars/isolationquarantine.htm>), meaning detention of people who may have been exposed but are not ill. This applied (for example [http://www.cbc.ca/stories/2003/05/24/sars\\_sat030524](http://www.cbc.ca/stories/2003/05/24/sars_sat030524)) to often 10 or more times as many people as there were actual cases, and was often done at home.
- 3) Quarantine used to mean isolation of known (or probable, as they were called) cases. CDC and others discourage the use of "quarantine" to mean this, preferring the term isolation.
- 4) Quarantine to mean sealing off a place in which there may be cases, such as a school.

It seems to me that planning for SARS should involve assembling guidelines for at least the first 3, possibly the 4th, including circumstances when these are appropriate, supplies needed, how long people should be held in each circumstance etc. As Joshua correctly pointed out on Monday, much of this requires good judgement and common sense more than detailed guidelines in advance. On the other hand, some of it really requires data (albeit imperfect) for guidance of those who must make decisions when the time comes. All the more so because of the needs for communication. My sense from looking over the website of CDC and the documents we received Monday is that 1) is largely a CDC function, so they have not perhaps publicized all their policies, since few others would have the need; 2) is perhaps the one for which there is the least information available in terms of guidelines for how, who, and when; and 3) is a hospital infection control issue for which fairly detailed information is

available already from CDC.

In thinking about this for military bases or operating units, then, it seems to me that more guidance about 1) would be very valuable, since people will have to make decisions about what to do about potentially exposed persons entering their areas of command, and more about 2) would be particularly useful, since guidance is not widely available (I was particularly struck that the CONPLAN has little about the mechanics of quarantine).

Thus, the kinds of practical issues that seem to me to be of high priority (important to know and no consensus document available that I can find) include: -- guidance on what if anything to do with, say, a soldier who has traveled in an area with considerable transmission and is returning to an uninfected base (this is an issue that, as I said, public health schools and universities struggled with around commencement time). -- guidance on how long to keep people in quarantine #2 above (10 days is the standard figure, because most incubation periods are less than or equal to 10 days; but it is fairly clear that not 100% of cases become symptomatic after 10 days -- key to understand this for risk communication if nothing else). -- guidance on what precautions should be taken in quarantine2 to prevent transmission from infected, quarantined individuals to uninfected quarantined individuals -- guidance on how to operate quarantine2 so that individuals becoming symptomatic can be isolated ASAP (this to my mind is the main value of quarantine2).

Sorry to be so long winded. Let me know if all this is barking up the wrong tree.

Marc